

Abstract of the Disclosure

A device for controlling fluid flow between an evaporative emission space of a fuel tank and a fuel vapor collection canister that includes a housing, a valve, a seal, an electric actuator, an electric transducer, and an electrical connector. The housing includes a first port, a second port, and a fluid flow path that extends between the first and second ports. The first port is adapted for receiving fluid flow from the evaporative emission space and is at a first pressure level. The second port is adapted for supplying fluid flow to the fuel vapor collection canister and is at a second pressure level. The valve is movable along an axis with respect to the housing between a first configuration, a second configuration, and an intermediate configuration between the first and second configurations. The first configuration permits substantially unrestricted fluid flow between the first and second ports. The second configuration prevents fluid flow between the first and second ports. The seal is located at an interface between the housing and the valve and includes an annular lip, which projects obliquely with respect to the axis in the first configuration of the valve. The electric actuator is disposed within the housing and is operatively coupled to the valve element. The electric transducer is disposed within the housing and is in fluid communication with the fluid flow path. The electric transducer senses the first pressure level. The electrical connector is disposed on the housing. The electrical connector includes a first set of terminals, which are in electrical communication with the electric actuator and a second set of terminals, which are in electrical communication with the electric transducer.

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